

**I CLAIM:**

1. A digital household automation control system, the family has electric appliances and controllers; meanwhile the controller is connected with a fire line of power and a load line with the both ends, wherein said digital household automation control system is comprised of: an input apparatus attached with a transmitting unit emitting RF signal in proper time; a relay transmitter including a RF receiving unit and an infrared-ray signal transmitting unit, wherein, the RF receiving unit can receive the RF signal emitted from the remote control, and transfer the RF signal into another one sent to the infrared-ray signal transmitting unit to make it emit an infrared-ray signal to control the various electric appliances or controllers; a controller cross-connected on a fire line of power and a load line, which includes a receiving unit, a central processing unit and a controlling unit controlled by the central processing unit, wherein, the receiving unit can receive the RF signal from the input apparatus directly, and send the signal to the central processing unit, therein comparing, analyzing treatment, then to drive the controlling unit to control the controller actions.
2. A digital household automation control system as claimed in claim 1, wherein said relay transmitter also includes an infrared-ray receiving unit and a memory unit connected with the infrared-ray receiving unit, so that the

infrared-ray receiving unit can receive the new infrared-ray signals from the remote controls of increased electric appliances, and save them into the memory unit.

5 3. A digital household automation control system as claimed in claim 1, wherein said input apparatus can be a remote control.

4. A digital household automation control system as claimed in claim 1, wherein said input apparatus can be a computer.

10 5. A digital household automation control system as claimed in claim 4, wherein said computer is linked into a network adapter so as to control the relay transmitter working via the network.

15 6. A digital household automation control system as claimed in claim 1, wherein said input apparatus can be a mobile communication unit, thereby controlling the relay transmitter working.

20 7. A digital household automation control system as claimed in claim 1, wherein said input apparatus can be a detecting actuator, which can be comprised of a detecting unit triggered by a signal of detecting and receiving any environment change, a central processing unit processing the signals came from the detecting unit, and a transmitting unit emitting the signals coming from the central processing unit to control the relay transmitter action.

25 8. A digital household automation control system as claimed in claim 1, wherein said input apparatus is attached with a RF receiving unit, and the controller is built upon with

a RF signal transmitting unit, so that the controller can send a feedback message to the RF receiving unit of the input apparatus after carrying out adjusting or cutting in-off under the controlling of the RF signal, in order to let the user know the working status of the controllers.